

Oil Spill Response Plan



Michigan 4-H Youth
Conservation Council

Focus Statement

The objective of the Michigan 4-H Youth Conservation Council is to have the Michigan Department of Environmental Quality (MDEQ) appoint on-scene coordinators for oil spills; to that end the council proposes that the department acquire training and equipment to better assess the damage and respond to the situation quickly. The council recommends that the MDEQ be granted the authority to waive permits and regulations that inhibit their response to a spill. This would serve to protect the environment as well as the interests of the people of Michigan and the energy industry.

Pipelines

- Oilfields to Refineries
- Refineries to Products
- Products to Consumers



<http://depositphotos.com>



<http://www.forbes.com>



<http://www.oilrefineryplant.com>

Pipelines

- Oil travels at a speed of 3-8 mph
- Interstate pipelines deliver about 11.2 billion barrels a year
- Pumps help move the oil through pipelines
 - Placed about every 20-100 miles

Economic Values of Pipelines

- Create Jobs
- Increase spending of goods & services
- Increased tax revenue to America's cities
- Cost effective source of transportation of oil, gas, and petroleum
- Part of process of heating, cooling, and electricity for homes & businesses
- Aid in production of food and manufacturing

Compare to Other Types Transportation

- Pipelines cost \$2/barrel compared to trains at \$12/barrel
- Pipelines cost \$.04/gallon compared to trucks at \$.25/gallon
- Helps keep cost lower for consumers on crude, gasoline, and jet fuel

Oil Spill Prevention Plan

◎ 4 types

- Mechanical Containment or Recovery
- Chemical and Biological Methods
- Physical Methods
- Scare Tactics



www.noaa.gov

Oil Spill Prevention Plan

- Occupational Safety and Health Administration (OSHA)
- Spill Prevention, Control and Countermeasure (SPCC)
 - Circumstances

On-Scene Coordinators

Four Main Responsibilities

- Assessment
- Monitoring
- Response Assistance
- Evaluation



<http://articles.latimes.com/2012/jul/29/nation/la-na-nn-enbridge-wisconsin-oil-spill-20120729>

On Scene Coordinator Training

- ◉ Safety Training Requirements
- ◉ Equipment Care
- ◉ Training Hours
- ◉ Health and Safety Course

On Scene Coordinator Training

- ◉ Homeland Security Training
- ◉ Professional Development Training
- ◉ 2-year Mentoring Program
- ◉ The MDEQ doesn't require respirator or hazmat training

Equipment

- ⦿ Safety
- ⦿ Monitoring
 - The MDEQ does not have required equipment

Who Has Equipment

- ◉ OSHA
- ◉ EPA
- ◉ Fire Department
- ◉ Coast Guard
 - Not the MDEQ



my.firefighternation.com

Cost of Equipment

- ◉ Varies between companies
- ◉ Initial response equipment costs \$6,000-8,000



www.123rf.com

EPA Region Five

- Illinois Environmental Protection Agency (IEPA)
- Indiana Department of Environmental Management (IDEM)
- Michigan Department of Environmental Quality (MDEQ)
- Ohio Environmental Protection Agency (OEPA)

EPA Region Five

- Minnesota Pollution Control Agency (MPCA)
- Wisconsin Department of Natural Resources (WDNR)
- Tribal: Establishes local arrangement for spill response

EPA Oil Spill Response Plan

- Handles Large Scale Spills with Significant
 - Environmental Hazards
 - Human Hazards
 - Economic Hazards
- Have Authority To:
 - Wave Restricting Permits
 - Demand Documentation and Assistance



green.autoblog.com

National Response System

- ◉ National Response Teams
 - Distribute information
 - Plan for emergencies
- ◉ On Site Coordinator
 - Order Response Actions
- ◉ Regional Response Teams
 - Technical Advice and Equipment
 - Assist On-scene Coordinator

Oil Spills in Other States

- On Site Coordinators organize the cleanup of oil
- Plans with the local response teams
- Emergency response kits near potential spill sites



<http://insideclimatenews.org>



<http://360naijanews.blogspot.com>

State Emergency Response Plan for Oil Spills

- Minnesota Spill Bill (Statute 115E)
 - Minnesota Pollution Control Agency created
 - Area Contingency Plan developed
 - Emergency response plan required for each company or facility handling oil or other hazardous substance
 - Training for all staff

State Emergency Response Plan for Oil Spills

○ Wisconsin

- State level - Emergency Support Function 10 (ESF-10) outlines how to prepare for and respond to a spill
- County level - County Wide Strategic Plan
- Emergency Spill Response Plan
- Comparison to the Minnesota Plan

MDEQ Response Plan

- Michigan is the only state in Region 5 without an On Scene Coordinator
- Delayed Response
- Limited efficiency with the overall cleanup process



Gvsu.edu

MDEQ Response Plan

- Lack of required equipment and special training
- Limited access to spill sites (hotspots)



www.vancouver.sun.com

Soil Effects

- ◉ Kills crops
- ◉ Hard to clean up
- ◉ Destroys local plant life, hard to replace



Water Effects

- Spreads very quickly
- Oil could harm local residents' health
- Kills fish, makes them toxic to humans



www.lifestyle.com.au

Effects of Oil on Plants

- Plants are the hardest to clean in an oil spill
- Plants photosynthesis affects the whole environment
- Oxygen is affected



www.flickr.com

Effects of Oil on Plants

- The effect on plants also affects animals, soil, and humans
- Digging up plants has bad results
- Plants can help in clean up



www.freep.com



www.boston.com

Effects On Animals

It can coat the animal's bodies, which can cause...

- ◉ Them to become easier prey
- ◉ Hypothermia
- ◉ Death from dehydration/starvation
- ◉ The animals (especially birds) to drown
- ◉ Blindness
- ◉ Disguises animal scents

Effects On Animals

Ingestion of oil can cause...

- Damage to the animals' immune systems and organs



saferenvironment.wordpress.com

Impact on Humans

- Property

- Marine Traffic



www.amwcontractors.com

Impact on Economy

- ◉ Trade
- ◉ Business
- ◉ Recreation
- ◉ Products
- ◉ Remediation Costs



www.hispanicallyspeakingnews.com

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Recommendations

The Michigan 4-H Youth Conservation Council would like to set forth the following recommendations:

- Adopt a oil response policy similar to the EPA
- Appoint an on-scene MDEQ coordinator to manage emergency spills
- Provide the MDEQ the authority to waive permits and regulations that inhibit their response to a spill
- Provide training and equipment for responders of the spill

Conclusion

Michigan 4-H Youth Conservation Council

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